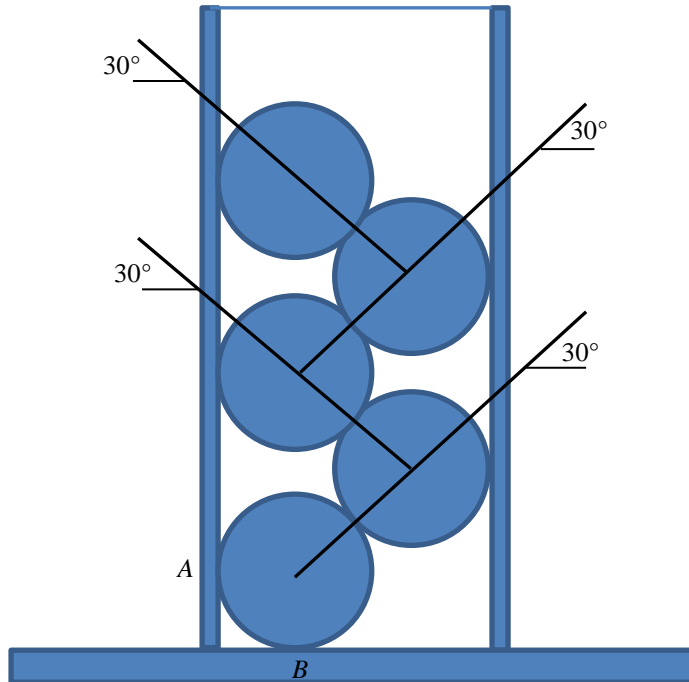


2. Five cylinders are placed between two smooth walls. The weights of the five cylinders are independently and normally distributed with $w_i \sim N(\mu_i, \sigma_i)$, $i=1,2,\dots,5$, where $w_i=25$ lb ($i=1,2,\dots,5$), and $\sigma_1=0.3$, $\sigma_2=0.2$, $\sigma_3=0.3$, $\sigma_4=0.4$ and $\sigma_5=0.4$, respectively. Determine the normal reactions at points A and B .



Answer: $N_A \sim N(173.21, 1.45^2)$ lb

$N_B \sim N(125, 0.73^2)$ lb